

**REMARKS**

Claim 1 has been amended to better define the claimed invention and to better distinguish the claimed invention from the prior art, as well as to address the 35 U.S.C. § 112 rejections. New claim 38 has been added. Support for the amendment to claim 1, and for new claim 38, may be found, for example, on page 6, lines 3-5 of the Specification (“Electrical connections in the preferred embodiment would be made during the lamination process with circuitry that is printed, etched or plated on a laminate film or layer that corresponds with the electrode connections for each layer”). No new matter has been added.

In response to the Examiner’s statement that “there is no support for the limitation “and wherein the battery layer is preformed and adhered to the photovoltaic layer,” Applicant respectfully disagrees. As stated at page 5, lines 1-3: “Starting with a base layer (1) each electrical component is stacked with an insulating, conductive or adhesive layer or combination; then pressure, heat, light or combinations of these are applied per laminating product specifications.” Additionally, “Photovoltaic (3) and battery (2) thin films are readily available through manufacturers who can produce them to customer size and apply an adhesive.” It is respectfully asserted that these passages, taken in conjunction with the figures, provide ample support for the feature that “the battery layer is preformed and adhered to the photovoltaic layer.” In an effort to expedite prosecution, however, this feature has been cancelled from the claim. Thus, it is respectfully submitted that independent claim 1, as well as the several claims dependent thereon, complies with the provisions of 35 U.S.C. § 112, first paragraph, and withdrawal of the §112, first paragraph rejection is respectfully requested.

Turning to the art rejections and considering first the rejection of claims 1, 5-11, 14-33, 36 and 37 under 35 U.S.C. § 103(a) as being unpatentable over Murasko et al. (US

2002/0159245; hereinafter “Murasko ‘245”) in view of Yamamura (JP 62-106671), Murasko (US 2001/0035716; hereinafter “Murasko ‘716”), Murasko (US 6,203,391; hereinafter “Murasko ‘391”), Curtin (US 6,160,215), and Kakite et al. (JP 59-217991; hereinafter “Kakite”), amended independent claim 1 requires:

A fully contained solar powered laminated electrical tape illumination device comprising a plurality of flexible layers in the following stacked order:  
a flexible base sealing layer;  
a flexible thin film battery layer;  
a flexible electrical circuitry layer;  
a flexible thin film photovoltaic layer to produce electricity;  
an illuminator layer; and  
a protective surface,  
wherein an adhesive having a removable covering is applied to said protective surface or base sealing layer, wherein all of the aforesaid layers are flexible and the assembled laminated device is also flexible, and wherein the electrical circuitry layer connects the battery layer and the photovoltaic layer.

It is respectfully submitted that no combination of the above-cited references can reasonably be said to render obvious Applicant’s independent claim 1, at least as amended, or any of the several claims dependent thereon.

At a minimum, it is respectfully submitted that none of the cited references, either alone or in combination, provides any teaching or suggestion of an electrical circuitry layer that connects the battery layer and the photovoltaic layer as required by Applicant’s independent claim 1. Rather than teaching “an electrical circuitry layer,” the primary reference, Murasko ‘245, teaches leads (214) that connect photocell 208 to power supply 104, and separate leads (214) that connect power supply 104 to light emitting device 106. Murasko, [0027]. The photocell 208, power supply 104 and light emitting device 106 are formed adjacent to each other, on the **same layer** (Murasko ‘245, [0024] and FIG. 2). Thus, Murasko’s leads are not a “layer” that connects the battery layer and photovoltaic layer; but instead, are merely discrete

connecting leads formed on the same plane, and within the same layer, as the photocell, power supply and light emitting device.

None of the other references, in any combination, can overcome this deficiency of the primary reference Murasko '245. Yamamura teaches the opposite of "an electrical circuitry layer" between his components. That is, Yamamura teaches an insulating layer (18) disposed between the solar battery (17) and the capacitor (22). Moreover, Yamamura explicitly teaches that "[b]oth electrodes 12a and 16a of the solar battery 17 are exposed outside."

Similarly, Kakite fails to teach or suggest an electrical circuitry layer that connects the battery layer and the photovoltaic layer, as claimed, but instead teaches external connections from both the light-emitting part (7) and the solar cell (11) to an external battery (14) "so that the power generated by the solar cell 11 can be stored in the battery 14," and for "supplying an energy required for the light emission." Likewise, it is respectfully submitted that each of Murasko '391, Murasko '716 and Curtain fail to provide any teaching or suggestion of an electrical circuitry layer that connects the battery layer and the photovoltaic layer, as claimed.

Moreover, this distinction is more than merely academic, since it permits Applicant to mass produce his fully contained device using simple stamping and rolling techniques as discussed on pages 4 and 5 of Applicant's specification.

For this reason alone, it is respectfully submitted that no combination of the cited references can reasonably be said to render obvious Applicant's independent claim 1, or any of the several claims dependent thereon. Moreover, there are other significant differences.

Also, as explained in Applicant's previous "Amendment I," incorporated herein by reference, Murasko '245 does not teach "stacked layers." Instead, Murasko '245 merely teaches a power supply (204), a light emitting device (206) and a photocell (208) formed

adjacent to each other on a surface of a substrate. *See, e.g.*, Murasko '245 [0024]-[0025]. Thus, Murasko '245 in no way teaches "stacked layers," as required by Applicant's independent claim 1, but merely teaches a surface of a substrate having a power supply, a light emitting device and a photocell all formed on a plane with each other. In contrast, Applicant's claimed invention specifies that the thin film photovoltaic layer, the thin film battery layer, and the illuminator are each separate layers. None of the additional references cited in the Office Action, alone or in any combination, provides the missing teachings necessary to render obvious Applicant's independent claim 1.

The Examiner acknowledges that Murasko '245 fails to teach a removable covering over the adhesive, specifically flexible components and devices as claimed, the thin film solar cell overlying the thin film battery, or the device having the claimed order of layers. Office Action at page 6.

The Examiner cites Yamamura as teaching a reduction in the number of parts of a laminated solar battery device by disposing a charged storage device (a capacitor) on the non-light receiving surface of a thin film solar cell assembly. *Id.* at p. 7. However, combining the teachings of Yamamura with the teachings of Murasko '245 fails to teach or suggest "an electrical circuitry layer that connects the battery layer and the photovoltaic layer, or the claimed stacked order of layers as required by independent claim 1. Instead, Yamamura simply teaches laminating a solar cell (called a solar battery by Yamamura, but no thin film battery is taught) and a built in capacitor layer on a substrate, thereby reducing the need for an external capacitor. A thin film battery is nowhere taught or suggested by Yamamura.

Moreover, one having skill in the art would have no motivation to combine Murasko '245 with Yamamura. Murasko '245's "power supply 104" is "preferably a battery." Murasko

‘245, [0018]. The power supply of Murasko ‘245 stores electrical energy, and provides the necessary electrical energy to illuminate the light emitting device 106 when needed (e.g., at night). [0027]. It is respectfully submitted that a capacitor, while admittedly a charge storage device, is **not** the same as the claimed thin film battery (or the power supply of Murasko ‘245, for that matter), and the significant differences between a capacitor and a battery are well known to those having ordinary skill in the art. The light emitting device of Murasko ‘245 may be illuminated for an appreciable amount of time because the power supply is a battery. A capacitor, on the other hand, discharges at a rapid rate, and therefore, one having ordinary skill in the art would not look to combine Murasko ‘245 with Yamamura in any meaningful way. Thus, even assuming *arguendo* that Yamamura discloses a capacitor “on the non-light receiving surface” of a solar cell assembly, it is respectfully submitted that one having ordinary skill in the art would not be motivated to combine Murasko ‘245 with Yamamura in order to achieve the claimed stacked order of elements, including a “thin film battery layer.”

The Examiner cites Curtin as teaching an adhesive layer over an outer protective surface and a removable backing over a clear adhesive layer that allows the cell to be affixed to any desired substrate. However, Curtin clearly fails to provide any teaching of, at least, “flexible layers in the following stacked order: a flexible base sealing layer, a flexible thin film battery layer, a flexible electrical circuitry layer, a flexible thin film photovoltaic layer to produce electricity, an illuminator layer, and a protective surface,” as required by independent claim 1. Even assuming *arguendo* that Curtin teaches as the Examiner describes, Curtin does nothing to provide the teachings missing from Murasko ‘245 and Yamamura as described above.

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The Examiner cites Murasko '716 and Murasko '391 as teaching an electroluminescent device that is flexible. However, Murasko '716 and Murasko '391 fail to teach or suggest, alone or in any combination with the cited references, "flexible layers in the following stacked order: a flexible base sealing layer, a flexible thin film battery layer, a flexible circuitry layer, a flexible thin film photovoltaic layer to produce electricity, an illuminator layer, and a protective surface," as required by independent claim 1. No stacked order is contemplated in any manner by Murasko '716 or Murasko '391. Even assuming, arguendo, that Murasko '716 and Murasko '391 teaches as the Examiner describes, neither Murasko '716 nor Murasko '391 does anything to provide the teachings missing from Murasko '245 and Yamamura as described above.

Finally, the Examiner relies on Kakite as teaching a translucent illuminator (7) overlying a thin-film photovoltaic layer (11). However, Kakite fails to teach or suggest, alone or in any combination with the cited references, at least, "flexible layers in the following stacked order: a flexible base sealing layer, a flexible thin film battery layer, a flexible circuitry layer, a flexible thin film photovoltaic layer to produce electricity, an illuminator layer, and a protective surface," as required by independent claim 1. Even assuming, arguendo, that Kakite teaches as the Examiner describes, Kakite does nothing to provide the teachings missing from Murasko '245 and Yamamura as described above.

For at least the foregoing reasons it is respectfully submitted that no combination of the cited references can render obvious Applicant's independent claim 1, or any of claims 5-11, 14-33, 36 and 37, each of which ultimately depend upon claim 1.

In light of the foregoing, Applicant respectfully asserts that the Examiner has improperly relied upon knowledge disclosed by Applicant's disclosure, and has applied impermissible hindsight to cherry pick from the teachings of six different references

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(references, as discussed above, that one having ordinary skill in the art would not look to combine) to make out an obviousness rejection for a device which itself only comprises seven elements! In any event, as demonstrated above, no combination of the cited references, whether proper or improper, reasonably can be said to render obvious Applicant's independent claim 1, or any of the several claims dependent thereon.

New claim 38 depends upon independent claim 1, and is therefore allowable over the combination of references for at least those same reasons adduced above relative to the independent claim, as well as for its own additional limitations.

Having dealt with all the objections raised by the Examiner, the Application is believed to be in order for allowance. Thus, entry of the Amendment, and allowance of the application are respectfully requested. Early and favorable action is respectfully requested.

RCE are being paid via EFS WEB in the amount of \$405.00.

Added claim fees (one dependent claim) are being paid via EFS WEB in the amount of \$26.00.

In the event there are any fee deficiencies or additional fees are payable, please charge them (or credit any overpayment) to our Deposit Account Number 08-1391.

Respectfully submitted,



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